

**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Petition for Waiver of Rules	)	GN Docket No. 15-178
Requiring Support of TTY	)	
Technology	)	

**REPORT**

On April 20, 2016, the Commission granted Competitive Carriers Association’s (“CCA”) request for a waiver of applicable TTY-related requirements for its members’ IP-enabled wireless services in the same manner and with the same conditions as the waivers the Federal Communications Commission (“FCC” or “Commission”) previously granted to AT&T, Verizon, and Cellular South.<sup>1</sup> In granting CCA’s request, the *CCA Waiver Order* required CCA to file, on behalf of its participating members, “a preliminary report with the Commission describing, with greater specificity than is provided in its Petition, its initial plans for meeting its commitment to develop and deploy RTT or an alternative text-based solution that is accessible, interoperable with other carriers’ accessibility solutions, and backward compatible with TTY technology.”<sup>2</sup> CCA’s preliminary report on behalf of its participating members is below with corresponding carrier information attached as Exhibit A.

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<sup>1</sup> *Petition for Waiver of Rules Requiring Support of TTY Technology*, Order, DA 16-435 (April 20, 2016) (“*CCA Waiver Order*”).

<sup>2</sup> *Id.* ¶ 18.

## **I. CCA’S MEMBERS HAVE IMPLEMENTED INDUSTRY STANDARDS THAT WILL SUPPORT INTEROPERABLE REAL-TIME TEXT SOLUTIONS**

CCA’s participating members have or will implement industry standard capabilities in their 4G LTE wireless networks that they will use to support interoperable real-time text (“RTT”) solutions. By basing transmission protocol for RTT transmission on recognized industry standards, each participating member’s development of RTT will promote the wider availability of interoperable RTT.

CCA’s participating members have or will include in their 4G LTE network industry standards, the Internet Engineering Task Force (“IETF”) standard RFC 4103 as a standard for real time conversational text, or a standard capable of supporting an interoperable, backwards compatible RTT solution.<sup>3</sup> AT&T, Verizon, and Cellular South also have specified that they plan to use RFC 4103 in their development of RTT,<sup>4</sup> and the Commission has proposed to use RFC 4103 as a “safe harbor” for compliance with its proposed RTT rules.<sup>5</sup>

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<sup>3</sup> See Letter from Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI) *et al.*, GN Docket No. 15-178 at 2 (Oct. 19, 2015) (stating that “the Consumer Groups support the adoption of the RFC 4103 standard – which is a non-proprietary, open standard – to ensure that RTT services are compatible regardless of the network on which the service is operating.”); Letter from Telecommunications Access Rehabilitation Engineering Research Center, *Proposal R1v3 for Implementation of Real-Time Text Across Platforms, Version 3.0*, GN Docket No. 15-178 (Nov. 17, 2015) (*RERC Proposal*). See also Architectural and Transportation Barriers Compliance Board, *Information and Communication Technology (ICT) Standards and Guidelines*, Notice of Proposed Rulemaking, 80 Fed. Reg. 10880 (Feb. 27, 2015) (“proposing to require that ICT interoperating with VoIP products using SIP must support the transmission of RTT that conforms to RFC 4103.”); see also *Transition from TTY to Real-Time Text Technology*, Notice of Proposed Rulemaking, CG Docket No. 16-145, GN Docket No. 15-178, FCC 16-53, ¶ 51 (rel. Apr. 29, 2016) (“*RTT NPRM*”) (proposing to adopt RFC 4103 as a safe harbor under the new RTT rules, while also permitting carriers to adopt any standard that “offers the same functions and capabilities as the selected standard, and is interoperable with the standard’s format where they connect with other providers.”).

<sup>4</sup> See AT&T Petition for Rulemaking, PS Docket Nos. 11-153, 10-255, WC Docket No. 04-36, CG Docket Nos. 03-123, 10-213 (filed June 12, 2015) at note 1 (“AT&T Petition for Rulemaking”) (defining RTT to mean IETF RFC 4103); see also Cellular South Report, GN Docket No. 15-178 (filed Mar. 17, 2016); Verizon Report, GN Docket No. 15-178 (filed Feb. 11, 2016).

<sup>5</sup> *RTT NPRM* ¶ 51.

In addition to implementation of appropriate standards that will allow interoperable RTT solutions, CCA and its members will undertake any additional steps necessary to ensure that critical 911 and 711 services currently supported by TTY can be implemented in RTT. CCA's largest carrier members also are working with device manufacturer partners to identify potential issues and opportunities in the development and deployment of RTT, while its non-nationwide carrier members are investigating the best way to ensure they are able to obtain necessary devices to support RTT in the most expedient manner.<sup>6</sup>

## **II. CCA'S PARTICIPATING MEMBERS BELIEVE THEY WILL NEED ADDITIONAL TIME TO MEET THE YEAR-END 2017 DEADLINE**

CCA's nationwide carrier members are arduously working toward deployment of RTT technology by the December 31, 2017 deadline. While these members are actively working to ensure functionality, accessibility, and interoperability between networks and with legacy TTY devices, CCA urges the Commission to be mindful that its members' ability to meet the December 31, 2017 RTT deployment deadline is largely dependent on other participants in the wireless ecosystem, including but not limited to original equipment manufacturers ("OEMs").

Indeed, as described in CCA's Petition, CCA and its smaller, non-nationwide carrier members continue to believe additional time will be required beyond the December 31, 2017 deadline to meet their obligations under the CCA waiver.<sup>7</sup> The Commission declined to extend the December 31, 2017 deadline for compliance in the waiver proceeding, deferring instead to the ongoing rulemaking proceeding.<sup>8</sup> While the Commission considers whether an extended

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<sup>6</sup> As CCA noted in its waiver petition, CCA's members are disadvantaged with respect to handset development cycles, and are unlikely to have meaningful input in the design and development of new devices. Revised Petition of Competitive Carriers Association for a Waiver, GN Docket No. 15-178, at 7-8 (filed Apr. 8, 2016) ("CCA Waiver Petition").

<sup>7</sup> *Id.*

<sup>8</sup> See *RTT NPRM* ¶ 27.

deadline is appropriate for non-nationwide wireless carriers, CCA and its non-nationwide members are actively investigating the necessary steps they must take to ensure functionality, accessibility, interoperability between networks, and interoperability with legacy TTY 911 and 711 services, in the shortest possible timeframe. In fact, even AT&T, in its most recent report, stated that only “testing and roll out of RTT in [AT&T’s] network and the OTT application” would be ready by December 2017.<sup>9</sup> According to its report, AT&T believes that native compliance would take longer, until at least 2018, when AT&T hopes to begin receiving mobile devices from manufacturers with this capability.<sup>10</sup> CCA, on behalf of its participating members, especially rural and regional carriers, reiterates the challenges its members might face with respect to implementation and deployment of new network features, as well as the availability of RTT-capable devices, on the same time frame as the largest carriers like AT&T and, particularly, the largest carriers with wireline infrastructure, capabilities, and resources.<sup>11</sup>

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<sup>9</sup> See *Ex Parte* Letter from Linda Vandeloop, AVP Federal Regulatory, AT&T, to Marlene H. Dortch, Secretary, FCC at 4 (filed June 16, 2016).

<sup>10</sup> See *id.*; see also *IP-Voice Accessibility Status Report of AT&T*, GN Docket No. 15-178 at 2 (filed Apr. 6, 2016). CCA urges the FCC to keep in mind that each carrier’s network architecture is unique. While an OTT RTT handset solution may be preferable for some members, others may prefer a native RTT handset solution. The FCC should be flexible in accommodating both types of solutions, and not exert a preference for one over the other.

<sup>11</sup> See CCA Waiver Petition at 7.

### III. CONCLUSION

CCA applauds the Commission for its attention to updating existing accessibility rules and to ensuring all consumers have access to the latest technologies. To that end, CCA thanks the Commission for granting an unprecedented association-wide waiver of the Commission's current TTY rules. CCA's members remain committed to deploying alternatives to TTY, including through the development and deployment of RTT, to ensure all consumers have access to devices. The remainder of CCA's Preliminary Report, including carrier specific information filed on behalf of its members, is attached below as Exhibit A.

Respectfully submitted,

/s/ Rebecca Murphy Thompson

Steven K. Berry

Rebecca Murphy Thompson

Courtney Neville

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July 19, 2016

Attachments: Exhibit A - Participating CCA Member Opt-Ins

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**Agri-Valley Communications, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Agri-Valley Communications, Inc. d/b/a Agri-Valley Services
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Agri-Valley has no current plans to launch IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Agri-Valley has no current plans to launch IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Agri-Valley will deploy equipment to meet industry standards as those standards are developed and as equipment is made available to carrier.
Will those industry standards include RFC 4103?	Yes, to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time. Also, at this time carrier intends to provide fixed internet services only and will not offer voice services over IP.

**Americell PA-3, LP**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Americell PA-3, LP d/b/a Indigo Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Americell does not currently have plans to deploy IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution. We do anticipate deploying in the future and will take all necessary steps to ensure compliance at that time.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Americell does not currently have plans to deploy IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution. We do anticipate deploying in the future and will take all necessary steps to ensure compliance at that time.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Americell does not currently have plans to deploy IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution. We do anticipate deploying in the future and will take all necessary steps to ensure compliance at that time.
Will those industry standards include RFC 4103?	Americell will take all necessary steps to ensure compliance including RFC 4103, if the wireless industry adopts the standard and when Americell deploys IP-based wireless services.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes.

**ATN International, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	ATN International, Inc. (“ATN”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	ATN International and its affiliates have no current plans to transition to IP-based wireless services but are seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	ATN International and its affiliates have no current plans to develop and deploy RTT but are seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes, to the degree that those standards are adopted by majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes, to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Barnes City Cooperative Telephone Company**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Barnes City Cooperative Telephone Company We are a partner of a wireless operator.
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Barnes City is an iWireless operating partner utilizing iWireless third-party vendor services. Barnes City does not have a planned RTT launch date at this time.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Barnes City is an iWireless operating partner, and intends to continue working with iWireless to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Barnes City is considering implementing industry standard capabilities for a 4G LTE wireless network in the future.
Will those industry standards include RFC 4103?	It is Barnes City’s understanding that the industry standards will include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	The ATIS RTT Standards Committee has not yet ratified device standards, though the Committee is expected to do so soon. Barnes City through iWireless will be discussing device issues with its vendors once the ATIS RTT Standards Committee makes the RTT device standards available to the industry.

**Carolina West Wireless, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Carolina West Wireless, Inc.
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Currently we are monitoring industry Associations (CCA and CTIA) to determine what solutions to implement. Carolina West has no internal development efforts but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Carolina West is seeking to opt-in to the waiver out of abundance of caution. Currently we are monitoring industry Associations (CCA and CTIA) to determine what solutions larger wireless companies and vendors implement. We have also participated in educational sessions related to RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	We are in the process of deploying 4G LTE services throughout our network.
Will those industry standards include RFC 4103?	We are in the early stages of evaluating RFC 4103 and its viability within our networks. It is our intent to follow industry standards.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	We have quarterly meetings with our infrastructure manufacturer and Device OEMs. Topics include TTY and RTT compatibility.

### **Cellular Network Partnership**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Cellular Network Partnership, an Oklahoma Limited Partnership d/b/a Pioneer Cellular
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Pioneer has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	We continually work with our partners to ensure interoperability. In conjunction with vendors and partners we are committed to supporting RTT interoperability.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	We are a member of ACG. ACG is setting standards and working with OEMs on the members’ behalf.

**Central Louisiana Cellular, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Central Louisiana Cellular, LLC d/b/a Cellular One (“CLC”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	CLC does not yet have plans to deploy IP-based communications. CLC is seeking to opt-in to CCA’s waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	CLC plans to meet carrier coordination and educational efforts through working with CCA. CLC does not yet have plans to deploy IP-based communications, but is opting into CCA’s waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**CML Telephone Cooperative Association**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	CML Telephone Cooperative Association (“CML”)  We are a partner of a wireless operator.
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	CML Telephone Cooperative Association is an iWireless operating partner utilizing iWireless third-party vendor services. CML does not have a planned RTT launch date at this time.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	CML is an iWireless operating partner, and intends to continue working with iWireless to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	CML is considering implementing industry standard capabilities for a 4G LTE wireless network in the future.
Will those industry standards include RFC 4103?	It is CML’s understanding that the industry standards will include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	The ATIS RTT Standards Committee has not yet ratified device standards, though the Committee is expected to do so soon. CML through iWireless will be discussing device issues with its vendors once the ATIS RTT Standards Committee makes the RTT device standards available to the industry.



**Cross Wireless, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Cross Wireless, L.L.C. d/b/a Sprocket Wireless and its affiliate Cross-Valliant Cellular Partnership d/b/a Sprocket Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	We are beginning the process of moving to RTT as our IP accessibility solution. First, we must have an IP-based network that supports RTT. We have already upgraded our backhaul network to all IP-based, and we are installing an IP-based core later this year. Once our network is IP-enabled, we can develop a concrete plan to deploy RTT as our accessibility solution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Sprocket Wireless will coordinate development and educational efforts for RTT through its partnership with a national carrier and CCA.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**East Kentucky Network, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	East Kentucky Network, LLC d/b/a Appalachian Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	As Appalachian Wireless begins to explore and develop IP-based wireless services, it will work with industry partners and CCA to develop and deploy an alternative accessibility solution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Appalachian Wireless will facilitate an implementation plan when we launch IP-based wireless services. Appalachian Wireless will continue to work with CCA and others in the industry to ensure accessibility compliance.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	We plan to implement widely adopted industry standards in our 4G LTE wireless network.
Will those industry standards include RFC 4103?	Yes, to the extent RFC 4103 is the standard adopted.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Appalachian Wireless has not had discussions with Original Equipment Manufacturers (OEM) for this technology yet; however, we always work directly with the OEM on any issues we encounter and will do the same here.

**FTC Communications**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	FTC Communications
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	FTC Communications is seeking to opt-in to the CCA TTY waiver out of an abundance of caution and will continue to monitor developments going forward.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	FTC Communications is seeking to opt-in to the waiver out of an abundance of caution. FTC Communications continues to work with CCA to ensure accessibility compliance.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**GCI Communication Corp.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	GCI Communication Corp.
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	As a member of ATIS, we receive information regarding the standard setting process for RTT. As a member of CCA and CTIA, we are engaged with other carriers to facilitate deployment. As a member of GSMA, we participate in educational sessions concerning ATIS's standard setting for RTT.
Please provide information related to "ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT."	We are members of GSMA, ATIS, CCA and CTIA. Through these memberships, we are coordinating with other carriers on the development and deployment of RTT, and educational efforts associated therewith.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry, as soon as our vendors are able to help us implement that standard.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Inland Cellular, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Inland Cellular, LLC d/b/a Inland Cellular
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Inland Cellular has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Inland Cellular has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution. We continue to work with CCA and its members to find a workable RTT solution for regional carriers.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Iowa Wireless Services, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Iowa Wireless Services, LLC d/b/a iWireless (“iWireless”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	iWireless utilizes a third-party vendor for services related to the routing and processing of E911 calls over IP-based wireless services. iWireless is in close communications with its E911 vendor to ensure that it is aware of progress on the RTT standards-making process, and that iWireless is ready to take the necessary steps to implement RTT when the standards are established. iWireless has also contacted its network infrastructure and its messaging platform vendors to determine the upgrades necessary, if any, to implement RTT.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	iWireless and its affiliates operate under a common brand name, “iWireless”, and iWireless will be working with its affiliates to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	iWireless and the ITCs have implemented industry standard capabilities in its 4G LTE wireless network.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	The ATIS RTT Standards Committee has not yet ratified device standards, though the Committee is expected to do so by the end of July 2016. iWireless will be discussing device issues with its vendors once the ATIS RTT Standards Committee makes the RTT device standards available to the industry.

**Kentucky RSA #3 Cellular General Partnership**  
**Kentucky RSA #4 Cellular General Partnership**  
**Cumberland Cellular Partnership**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	<p>Kentucky RSA #3 Cellular General Partnership (a Kentucky general partnership) d/b/a Bluegrass Cellular</p> <p>Kentucky RSA #4 Cellular General Partnership (a Kentucky general partnership) d/b/a Bluegrass Cellular</p> <p>Cumberland Cellular Partnership (a Kentucky general partnership) d/b/a Bluegrass Cellular (“Bluegrass Cellular”)</p>
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Bluegrass Cellular will comply with mandates regarding a TTY alternative solution but deployment date is to be determined. Bluegrass Cellular is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Bluegrass Cellular is engaging other wireless carriers but further investigation is ongoing. Bluegrass Cellular is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Bluegrass Cellular is investigating implementation efforts.
Will those industry standards include RFC 4103?	Yes, if RFC 4103 is adopted.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Bluegrass Cellular is engaging OEMs.

**NE Colorado Cellular, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	NE Colorado Cellular, Inc. d/b/a Viaero Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Viaero is seeking to opt-in to the waiver out of an abundance of caution. As Viaero begins to explore IP-based wireless services, it will work with industry partners and CCA to develop and deploy an alternative accessibility solution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Viaero is seeking to opt-in to the waiver out of an abundance of caution. We are still in the build-out phase of 4G LTE to support the VOLTE. We are watching for devices that will allow RTT over VOLTE. Viaero will continue to work with CCA and others in the industry to ensure accessibility compliance.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	We have implemented the latest industry standard capabilities on the portion of our network that is 4G LTE and will continue to implement them on those parts of the network that will become 4G LTE enabled within the next year.
Will those industry standards include RFC 4103?	Yes if RFC 4103 is adopted.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	We are working with our OEM to the extent that they are the source of our devices and find alternatives for all other devices.



**Nex-Tech Wireless LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Nex-Tech Wireless LLC
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Nex-Tech Wireless has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Nex-Tech Wireless is committed to understanding the technical and operational impact of implementing RTT and is participating in discussions with vendors and industry peers to determine the best path forward.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Nex-Tech Wireless has implemented a state of the art 4G wireless network and strives to meet or exceed industry standards when possible.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Nex-Tech Wireless is using all available relationships to ensure compliance with future timing requirements.

**Northwest Missouri Cellular Limited Partnership**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Northwest Missouri Cellular Limited Partnership d/b/a NorthwestCell
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	We are beginning the process of moving to RTT as our IP accessibility solution. First, we must have an IP-based network that supports RTT. We have already upgraded our backhaul network to all IP-based, and we are installing an IP-based core later this year. Once our network is IP-enabled, we can develop a concrete plan to deploy RTT as our accessibility solution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	NorthwestCell is coordinating with industry partners to develop and deploy RTT capabilities, and NorthwestCell anticipates deploying substantially the same RTT capabilities as its partners.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	NorthwestCell has implemented, and plans to implement industry standard capabilities in its 4G LTE network substantially consistent with the capabilities of its industry partners that NorthwestCell will use to support RTT solutions.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Nsighttel Wireless, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Nsighttel Wireless, LLC d/b/a Cellcom (“Cellcom”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Cellcom has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Cellcom will continue to work with CCA and CCA’s members, as well as the industry, to develop real-time text (“RTT”), educational efforts regarding RTT and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	When Cellcom begins to offer VoLTE and/or VoWiFi, it plans on implementing industry standard capabilities in the 4G LTE wireless network which it will use to support interoperable RTT solutions.
Will those industry standards include RFC 4103?	When Cellcom begins to offer VoLTE and/or VoWiFi, it plans to include in the 4G LTE network industry standards, the Internet Engineering Task Force (“IETF”) standard RFC 4103 as a standard for real time conversational text, or a standard capable of supporting an interoperable, backwards compatible RTT solution.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	As CCA noted in its waiver petition, CCA’s members are disadvantaged with respect to handset development cycles, and are unlikely to have meaningful input in the design and development of new devices. That being said, as Cellcom begins the planning process for rolling out VoLTE and/or VoWiFi, it will investigate the best way to ensure it is able to obtain the necessary devices to support RTT in the most expedient manner possible.

**Panhandle Telecommunication Systems, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Panhandle Telecommunication Systems, Inc. (dba PTCI)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	PTCI has engaged in initial discussions with its core host on the process for development and deployment of a RTT solution. However, PTCI has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	PTCI has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Pine Belt Cellular, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Pine Belt Cellular, Inc. d/b/a Pine Belt Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Pine Belt has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Pine Belt has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Premier Wireless, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Premier Wireless, Inc. – branded as and a partner of iWireless (“iWireless”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Premier Wireless does not have a planned RTT launch date at this time, but is opting into the CCA waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Premier Wireless intends to continue working with partners to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Premier Wireless has implemented industry standard capabilities in its 4G LTE wireless network.
Will those industry standards include RFC 4103?	It is Premier Wireless’ understanding that the industry standards include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	The ATIS RTT Standards Committee has not yet ratified device standards, though the Committee is expected to do so by the end of July 2016. Premier Wireless will be discussing device issues with its vendors once the ATIS RTT Standards Committee makes the RTT device standards available to the industry.

**RSA 1 Limited Partnership**  
**Iowa RSA 2 Limited Partnership**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	RSA 1 Limited Partnership d/b/a Chat Mobility, and Iowa RSA 2 Limited Partnership d/b/a Chat Mobility (collectively “Chat Mobility”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	We are beginning the process of moving to RTT as our IP accessibility solution. First, we must have an IP-based network that supports RTT. We have already upgraded our backhaul network to all IP-based, and we are installing an IP-based core later this year. Once our network is IP-enabled, we can develop a concrete plan to deploy RTT as our accessibility solution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Chat Mobility will coordinate development and educational efforts for RTT through its partnership with a national carrier and CCA.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Chat Mobility has implemented, and plans to implement industry standard capabilities in its 4G LTE network substantially consistent with the capabilities of industry partners that Chat Mobility will use to support RTT solutions.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Rural Independent Network Alliance, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Rural Independent Network Alliance, LLC
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	No plans to develop and deploy an alternative accessibility solution to TTY at this time but is seeking to opt-in to the CCA waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	We are working with various association groups to coordinate education of RTT and implementation plans.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.



**Shenandoah Telecommunications Company, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Shenandoah Telecommunications Company, Inc. Shenandoah Personal Communication Services, LLC Shentel (“Shentel”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Shentel has no current plans to launch IP-based wireless services but is seeking to opt-in to the waiver out of abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Shentel has no current plans to launch IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Shentel has deployed 4G throughout the Shentel footprint and will have 4G deployed in all of the nTelos network by the end of 2017. Shentel complies with all industry standards, as necessary or applicable.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes.

**South Slope Cooperative Telephone Company**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	South Slope Cooperative Telephone Company d/b/a South Slope Cooperative Communications d/b/a South Slope Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	South Slope is an iWireless operating partner utilizing iWireless third-party vendor services. South Slope does not have a planned RTT launch date at this time. But is opting into CCA's waiver out of an abundance of caution.
Please provide information related to "ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT."	South Slope intends to continue working with industry partners to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	South Slope is considering implementing industry standard capabilities for a 4G LTE wireless network in the future.
Will those industry standards include RFC 4103?	It is South Slope's understanding that the industry standards include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	The ATIS RTT Standards Committee has not yet ratified device standards, though the Committee is expected to do so by the end of July 2016. South Slope will be discussing device issues with its vendors once the ATIS RTT Standards Committee makes the RTT device standards available to the industry.

**Southern Communications Services, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Southern Communications Services Inc., d/b/a SouthernLINC Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	SouthernLINC is operating its iDEN network and plans to support TTY until its full transition to VoLTE. SouthernLINC is currently constructing its 4G LTE network.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	SouthernLINC coordinates with other carriers through its participation in associations such as CCA and CTIA.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	SouthernLINC is considering implementing industry standard capabilities for its 4G LTE wireless network in the future.
Will those industry standards include RFC 4103?	It is SouthernLINC’s understanding that the industry standards will include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes, SouthernLINC is working with its OEMs on potential requirements for RTT.

**Sprint Corporation**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Sprint Corporation on behalf of its brands Sprint, Virgin Mobile USA, Boost Mobile and Assurance Wireless
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Sprint is planning to deploy RTT support for its IP-based wireless communications. Sprint's timeline to deploy an all IP network for voice communications (e.g., VoLTE) is undetermined at this point. However, as Sprint deploys IMS as part of its VoLTE roll-out, Sprint will incorporate RTT support. In the interim, Sprint will continue to support TTY over its circuit-switched voice network.
Please provide information related to "ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT."	Sprint participates in numerous industry standards bodies involved with RTT development, including notably, two ATIS committees: the Wireless Technology and Systems Committee (WTSC), and the Packet Technologies and Systems Committee (PTSC). Sprint also works individually with consumer interest groups and collectively with CTIA and CCA on a variety of outreach/educational activities. As the nation's leading provider of Relay Services to, Sprint is proud of its service to deaf, hard of hearing, speech impaired and deaf-blind consumers and looks forward to ensuring RTT will be implemented in a way to further enrich the lives of people in these communities.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Sprint plans to implement RTT based on standards being developed by IETF, 3GPP and ATIS.
Will those industry standards include RFC 4103?	At this time, Sprint expects RFC 4103 to be included within the industry standards.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes, discussions, including those related to timing, have begun and will intensify as Sprint's roadmap for VoLTE transition is solidified.

**Texas 10, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Texas 10, LLC d/b/a Cellular One
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Texas 10, LLC (“TX-10”) does not yet have plans to deploy IP-based communications or, accordingly, RTT. It is opting into CCA’s waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	TX-10 plans to meet carrier coordination and educational efforts through working with CCA. TX-10 does not yet have implementation plans to deploy IP-based communications or, accordingly, RTT, but is opting into CCA’s waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	TX-10 does not yet have plans to deploy 4G LTE wireless networks, but expects that when it does, it will implement industry standard capabilities.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**Thumb Cellular, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Thumb Cellular, LLC
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Thumb Cellular, LLC has no current plans to deploy an alternative TTY accessibility solution but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Thumb Cellular, LLC has no current plans to deploy an alternative TTY accessibility solution but is seeking to opt-in to the waiver out of an abundance of caution. Thumb Cellular, LLC is a rural carrier which is unable to affect the equipment market place and, therefore, Thumb Cellular, LLC is not currently involved in any activities to develop RTT.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Thumb Cellular, LLC will deploy equipment to meet industry standards as those standards are developed and as equipment is made available to Thumb Cellular, LLC.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Thumb Cellular, LLC is a small company and does not deal with OEMs directly but will work with industry partners to source devices if/when necessary.

**T-Mobile US, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	T-Mobile US, Inc. <sup>12</sup>
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	T-Mobile is implementing industry standards that will support interoperable RTT solutions and is including in its 4G LTE network such industry standards as the Internet Engineering Task Force (IETF) standard RFC 4103.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	T-Mobile is an active participant in the Alliance for Telecommunications Industry Solutions (ATIS) RTT standards development working groups.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes.
Will those industry standards include RFC 4103?	Yes.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes.

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<sup>12</sup> T-Mobile US, Inc., a publicly traded company, provides services through its subsidiaries and operates its flagship brands, T-Mobile and MetroPCS. This document addresses the network of T-Mobile US, Inc.



**Competitive Carriers Association TTY-RTT Transition Waiver Order  
(GN Docket No. 15-178)**

**SUBMISSION OF T-MOBILE US, INC.<sup>13</sup>  
July 8, 2016**

**I. CCA Member Waiver Opt-In**

As a member of the Competitive Carriers Association (CCA), T-Mobile is opting-in to secure the benefit of the waiver extended to CCA members on April 20, 2016, and affirms its awareness of the commitments stated in the CCA revised petition.<sup>14</sup>

**II. Preliminary Report**

In granting CCA's request, the Bureaus, in paragraph 18 of the Waiver Order, require submission of a preliminary report by July 19, 2016, describing the plans of each CCA member seeking the benefit of the waiver to develop and deploy real-time text (RTT) or an alternative text-based solution that is accessible, interoperable with other carriers' accessibility solutions, and backward compatible with TTY technology.<sup>15</sup> Please find T-Mobile's preliminary report below.

T-Mobile is implementing industry standards that will support interoperable RTT solutions and is including in its 4G LTE network such industry standards as the Internet Engineering Task Force (IETF) standard RFC 4103. In addition to development and testing of its network, T-Mobile is working with handset manufacturer partners on the development of handsets that would support the RTT solution.

T-Mobile has assembled a cross-functional team with a variety of expertise to collaborate on the development of its solution. The team includes engineers and business managers focusing on the wireless network, wireless handsets, emergency calling capabilities and the accessibility experience. T-Mobile has made substantial progress to date and continues to work toward meeting the year-end 2017 deadline.

Steve Sharkey  
Vice President – Technology Policy  
Government Affairs  
T-Mobile US, Inc.

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<sup>13</sup> T-Mobile US, Inc., a publicly traded company, provides services through its subsidiaries and operates its flagship brands, T-Mobile and MetroPCS. This document addresses the network of T-Mobile US, Inc.

<sup>14</sup> See *In the Matter of Petition for Waiver of Rules Requiring Support of TTY Technology – Competitive Carriers Association*, Order, DA 16-435, para. 17.

<sup>15</sup> *Id.* at para. 18.



**Triangle Communication System, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Triangle Communication System, Inc. d/b/a Triangle Communications
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	We plan to monitor the solutions as they become available; we will determine the best RTT or an alternative text-based solution at the time that we deploy our IP-based wireless network. The solution that we put in place will be interoperable with other such solutions and backwards compatible with TTY technology.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	We will continue to work with CCA and other carriers to coordinate the best implementation strategies for RTT or an alternative text-based solution. At such time when we have the solution in place, we will make available the best educational opportunities that fits the need of the consumer.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes, we are taking the necessary steps to ensure that our 4G LTE network will comply with the standards for RTT or alternative text-based solutions.
Will those industry standards include RFC 4103?	Yes, we plan to have the industry standards include RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	We continue to work with manufacturers to the best of our ability.

**Uintah Basin Electronic Telecommunications, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Uintah Basin Electronic Telecommunications, LLC, d/b/a STRATA Networks
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	STRATA Networks has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	STRATA Networks has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution. We are working with various association groups to coordinate education of RTT and implementation plans.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.

**United States Cellular Corporation**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	United States Cellular Corporation (“U.S. Cellular”), a Delaware corporation, whose principal place of business is located at 8410 West Bryn Mawr Avenue, Chicago, Illinois 60631, its Subsidiaries and Affiliates (collectively referred to as “USCC”).
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	USCC has assembled technical teams that are identifying the handset requirements and network support necessary to deploy and maintain an effective interoperable Real Time Text (RTT) platform. USCC also has a pending project plan with dates and milestones that includes resources starting in August 2016 to achieve RTT Network Readiness by Q4-2017.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	USCC will confirm that 911 calls made by persons seeking emergency assistance using this technology are delivered in accordance with the interoperability obligations of telecommunications carriers to transmit 911 calls to the appropriate PSAP or local emergency authority. Currently, USCC is collaborating with the two major wireless carrier industry trade associations to respond to the FCC’s “Transition of TTY to RTT” NPRM. USCC anticipates that educational materials concerning RTT will be posted on its own customer facing website and cross-referenced on industry association websites.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	To date, USCC’s technical groups are evaluating development of dedicated architecture, while monitoring standards developments, towards supporting a defined solution for RTT.
Will those industry standards include RFC 4103?	USCC prefers a standards-based deployment approach and will evaluate RFC 4103.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	At this time USCC is assessing internal device specifications and terminal requirements to ensure RTT capabilities will be met in future device roadmap portfolios.

**United Wireless Communications, Inc.**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	United Wireless Communications Inc.
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	United Wireless has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	United Wireless has no current plans to transition to IP-based wireless services but is seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Yes, for possible future plans.

**Upper Midwest Wireless, LLC**

<b><u>Question</u></b>	<b><u>Member Answer</u></b>
Please provide company identification information, including whether you operate under a d/b/a.	Upper Midwest Wireless, LLC and its affiliates (“Upper Midwest Wireless”)
Please provide specific evidence of your plans to develop and deploy an alternative accessibility solution to TTY, if any, by December 2017.	Upper Midwest Wireless and its affiliates have no current plans to transition to IP-based wireless services but are seeking to opt-in to the waiver out of an abundance of caution.
Please provide information related to “ongoing coordination with other carriers working to develop RTT, educational efforts regarding RTT, and implementation plans that will facilitate RTT.”	Upper Midwest Wireless and its affiliates have no current plans to transition to IP-based wireless services but are seeking to opt-in to the waiver out of an abundance of caution.
Have you implemented, or do you plan to implement, industry standard capabilities in your 4G LTE wireless networks?	Yes to the degree that those standards are adopted by a majority of the U.S. wireless industry.
Will those industry standards include RFC 4103?	Yes to the degree that RFC 4103 is adopted by a majority of the U.S. wireless industry.
Are you working with Original Equipment Manufacturers on device issues, including discussions related to timing?	Not at this time.